

PROBIOTICS RAW MATERIAL UNIQUE STRAINS AND PREMIX

Microbiome for Human Health
Pioneering Innovative Probiotic Solutions

 CELL BIOTECH

PROBIOTICS SPECIALIST WITH 30 YEARS OF EXPERIENCE



PROBIOTICS ONE STOP SOLUTION

- Probiotics Specialist with 30-Year Experience
- From Lab to Shelf and Marketing Support
- Customized OEM Services



WORLDWIDE PATENTED COATING TECHNOLOGY

- 100 Times Higher Survival Rate than Uncoated Probiotics
- Patent in Europe, USA, South Korea, Japan and China



SAFETY EVALUATION FROM ALL ANGLES

- GRAS Noticed by U.S. FDA
- Human Origin Strains
- Strain Deposit
- In-vitro, In-vivo, Clinical Trials
- Whole Genome Sequencing
- 16S rRNA Sequence Analysis
- Antibiotic Resistance Test
- Toxicity Assessment



GENETIC-BASED FORMULATION TECHNOLOGY

- Genome Identification for Targeted Functionality
- R&D Leads the Full Process of Formulation
- Formulation Considering Different Growth Rates of the 3 Genera
- Formulation Tailored for Microbiome Diversity by Age



IN-HOUSE FERMENTATION FOR HIGHEST QUALITY

- Fully Automated Control System
- Fermentation Facilities For The Highest Quality



PROBIOTICS-CENTRIC MANUFACTURING FACILITIES

- Optimized Facilities for Maximum Probiotics Viability
- Internalized Process from Start to Finish
- Made-to-order Solutions



GLOBAL QUALITY CONTROL STANDARDS

- Independent Line Audit System
- Global Certifications and EMS(Environmental Management Systems)
- MUI HALAL, KOSHER, GMP, HACCP, ISO9001, ISO14001, GRAS



MARKETING PARTNERSHIPS

- A Wide Range of Marketing Service for Your Growth
- Seminars, Academic Conferences, KOL Invitation

PROBIOTICS RAW MATERIAL

LAB2PRO® RAW MATERIAL



Single Strain

A broad selection of single strains carefully developed by Cell Biotech R&D center to suit your needs.



Premix Formula

Scientifically proven base probiotic formulation for your processing.

STANDARD TERMS OF SALES

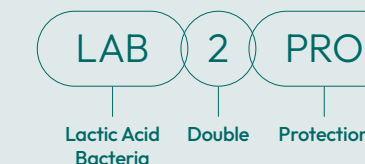
- **Payment Terms** Unless otherwise agreed, prepayment is required via bank transfer.
- **Delivery Terms** For orders weighing less than 20 kg, delivery will be arranged EXW Korea. For orders exceeding 20 kg, delivery will be arranged CIP main airport.
- **Premix MOQ** 30 kg
- **Single Strain MOQ** Minimum order quantities are as follows : 1 × 1E10 cfu/g - 30 kg, 5 × 1E10 cfu/g - 10 kg, 1 × 1E11 cfu/g - 5 kg.
- **Special Discount** A 5% price discount will be applied to orders exceeding 500 kg.
- **CoA testing** Please note that if additional testing and criteria for heavy metals are required in the Certificate of Analysis (CoA), the unit price stated above will increase by 30%.

TERMS FOR ORDERS BELOW MOQ*

Numbers of Order	MOQ	SINGLE STRAIN	PREMIX
First Trial	Orders below MOQ	No surcharge	No surcharge
Second Trial	Orders below MOQ	+20% on price	+40% on price
Future Small	Orders below MOQ	+50% on price	+100% on price

* For orders below the MOQ, customers are responsible for freight costs.

LAB2PRO®



BRAND ELEMENTS FOR B2B CUSTOMERS

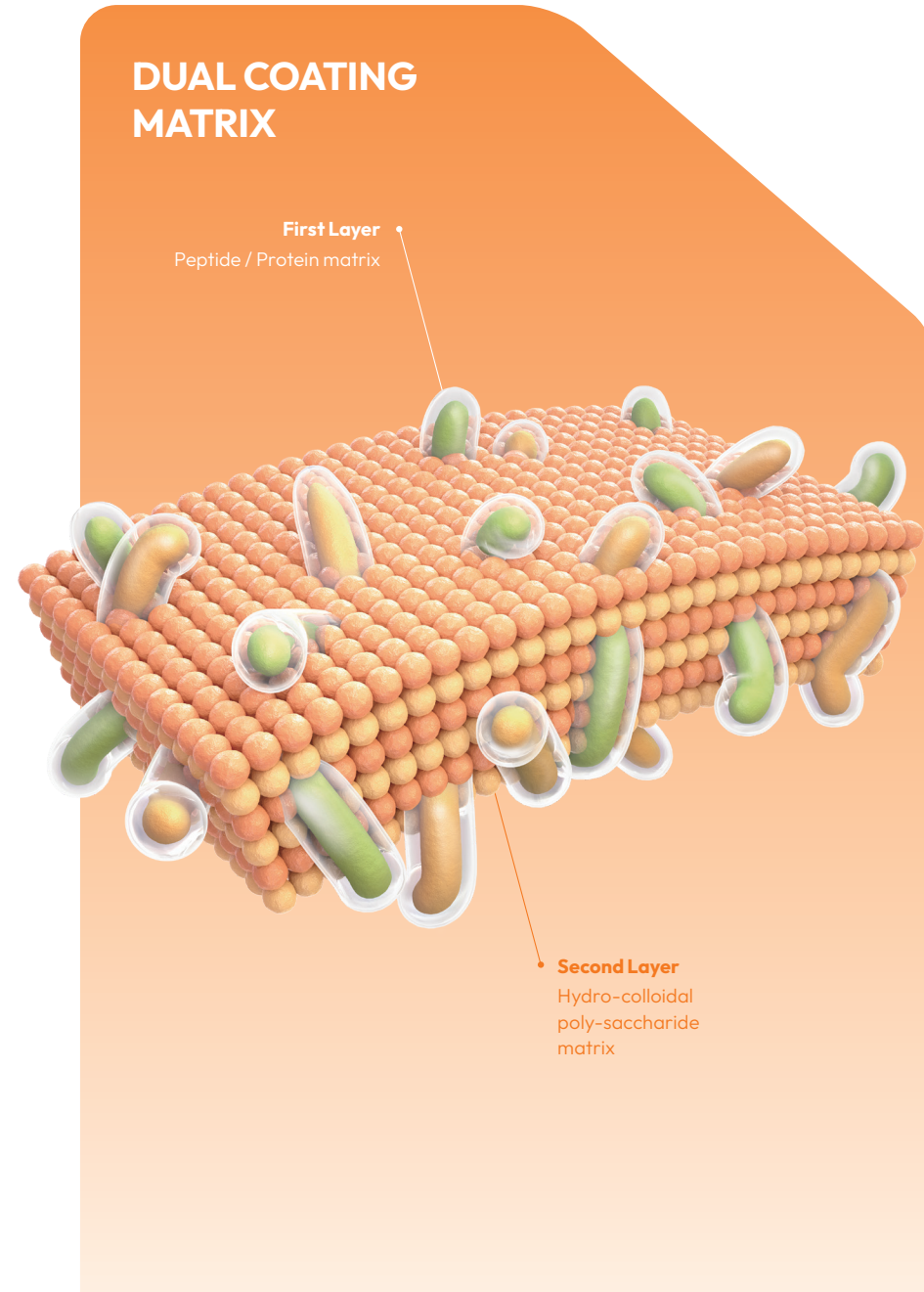
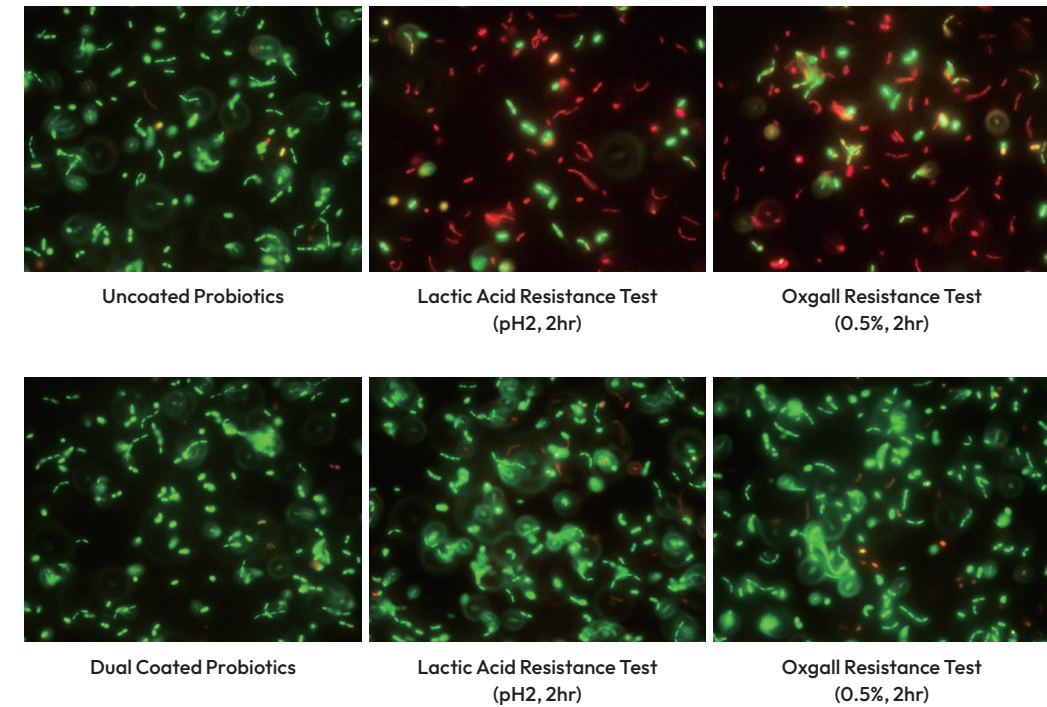
The diamond, strong and durable, illustrates the power that our technology system offers to protect valuable probiotic strains in the core. All Cell Biotech probiotics including single strain, premix powders and finished concepts, are branded LAB2PRO® to guarantee the uniqueness and high quality delivered.

WORLDWIDE PATENTED COATING TECHNOLOGY

100 TIMES HIGHER SURVIVAL RATE

More than 90% of good bacteria are orally consumed but they are killed by gastric acid and bile salt. Our superior coating technology ensures a probiotic survival rate in the intestine that is **100 times higher** than that of uncoated probiotics. Yeun, Y., & Lee, J. (2015)

MICROSCOPE PICTURES OF PROBIOTICS



HOW DOES IT WORK?

The combined interactions of the iso-electric point of the peptide/protein coating matrix and the beta linkage of the polysaccharide matrix ensure that our dual-coated probiotics are protected from the acidic pH environment of the stomach. This protection allows them to safely reach the intestines, where they can colonize and proliferate.



🏆 SUPERIOR TO COMMON COATING METHODS

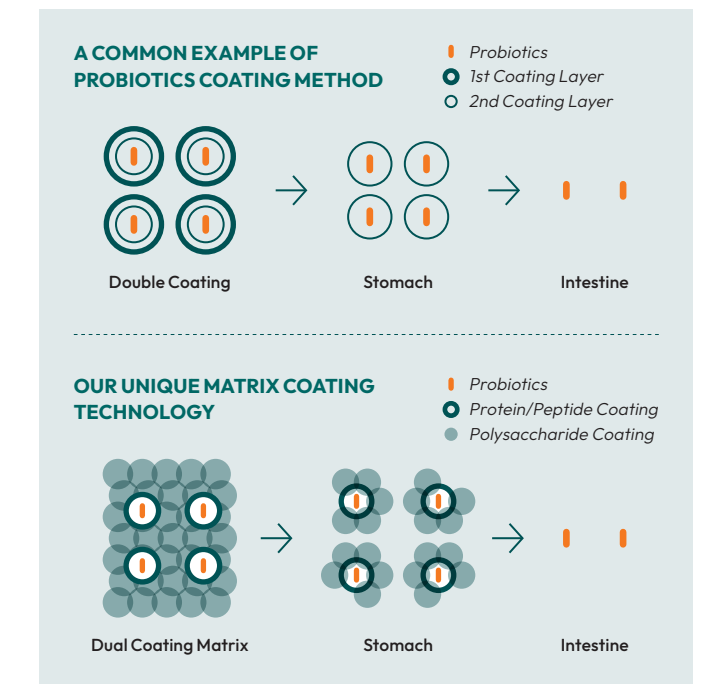
A partially water-soluble **protein/peptide** component acts **as the first coating**, adhering to the cell wall of the microorganism and forming a protective protein coating around it. The **second coating** agent, **polysaccharide**, not only binds with the protein/peptide, the first coating agent, but also forms microbial aggregates due to its unique adhesive properties. This ensures **stability and enables the microorganism to reach the intestine intact, even at low pH levels of the stomach, without dissolution.**

🧬 MAINTAIN VIABILITY OF LIVE BACTERIA DURING CONSUMING

In case of general multi-coating products, the vulnerability of the second coating arises when the first coating is damaged by internal factors such as stomach and bile acids or external environmental conditions such as moisture, temperature, and mechanical pressure. And this may leads to a potential failure in safely delivering probiotics to the intestine. On the other hand, **our special coating is like a strong network, so even if it breaks apart for any reason, each part can still reach the intestine safely.**

WORLDWIDE PATENTS

Our probiotics coating technology is patented worldwide, including in Korea, the USA, Europe, China, and Japan. These global patents enable us to export to 53 countries worldwide.



RIGOROUSLY RESEARCHED TOP-QUALITY STRAINS

WORLD No.1

U.S. FDA GRAS NOTIFIED SAFE STRAINS : WORLD'S NO.1 PROBIOTICS COMPANY WITH GRAS STATUS

No.	Probiotics	Name	Species	Origin	U.S. FDA GRAS	Whole Genome Sequencing	Clinical Trials
1	Lactobacillaceae	CBT-LA1	<i>Lactobacillus acidophilus</i>	Healthy Human	●	●	●
2		CBT-LH5	<i>Lactobacillus helveticus</i>	Healthy Human		●	
3		CBT-LC5	<i>Lactocaseibacillus casei</i>	Healthy Human	●	●	●
4		CBT-LG1	<i>Lactobacillus delbrueckii subsp. bulgaricus</i>	Mother's Milk		●	
5		CBT-LP3	<i>Lactiplantibacillus plantarum</i>	Fermented Food (Kimchi)	●	●	●
6		CBT-LPC5	<i>Lactocaseibacillus paracasei</i>	Fermented Sea food		●	●
7		CBT-LU4	<i>Limosilactobacillus reuteri</i>	Healthy Human		●	●
8		CBT-LR5	<i>Lactocaseibacillus rhamnosus</i>	Healthy Human	●	●	●
9		CBT-LGA1	<i>Lactobacillus gasseri</i>	Mother's Milk		●	●
10		CBT-LR6-Feminine	<i>Lactocaseibacillus rhamnosus</i>	Healthy Women		●	
11	Bifidobacterium	CBT-BT1	<i>Bifidobacterium infantis</i>	Healthy Infant	●	●	●
12		CBT-BL3	<i>Bifidobacterium lactis</i>	Healthy Infant	●	●	●
13		CBT-BR3	<i>Bifidobacterium breve</i>	Healthy Infant	●	●	●
14		CBT-BF3	<i>Bifidobacterium bifidum</i>	Healthy Infant	●	●	●
15		CBT-BG7	<i>Bifidobacterium longum</i>	Healthy Infant	●	●	●
16	Coccus	CBT-SL6	<i>Lactococcus lactis</i>	Healthy Human	●	●	
17		CBT-EF4	<i>Enterococcus faecium</i>	Healthy Human		●	
18		CBT-EFL2	<i>Enterococcus faecalis</i>	Healthy Human		●	
19		CBT-SL5	<i>Enterococcus faecalis</i>	Healthy Human		●	●
20		CBT-ST3	<i>Streptococcus thermophilus</i>	Healthy Human	●	●	●
21		CBT-SL4 (PP1)	<i>Pediococcus pentosaceus</i>	Fermented Food (Kimchi)		●	●

RAW MATERIAL - PREMIX

UNIQUE PROBIOTICS FORMULATION BACKED BY SCIENCE

No.	Name	Concept	Target	Format	Premix Formula	Clinical Trial	In vivo	In vitro	VCC CFU
1	Newborn Baby™	Infant Gut Health	Infant (0~12M)	Oil drop	CBT-BT1, CBT-BR3, CBT-BG7, CBT-BF3	●		●	
2	Happy Baby™	Baby Acute Diarrhea	Baby (6M~24M)	Powder	CBT-LP3, CBT-LA1, CBT-LR5, CBT-BG7, CBT-BL3, CBT-SL4(PP1)	●	●	●	
			Kids (24M~13Y)	Tablet					
3	Milk Again™	Lactose Intolerance Acute Diarrhea	Baby (6M~24M)	Powder	CBT-LA1, CBT-BG7, CBT-ST3	●		●	
4	Derma Plus™	Atopic Dermatitis	Baby (6M~)	Powder	CBT-LC5, CBT-LP3, CBT-LR5, CBT-BL3	●	●	●	
5	Daily Vitality™	IBS, IBD	Adult (+12Y)	Capsule/Powder	CBT-LA1, CBT-LR5, CBT-BL3, CBT-BG7, CBT-BF3, CBT-ST3	●	●	●	
6	Relieve™	IBS, Constipation	Adult (+12Y)	Powder	CBT-LA1, CBT-LP3, CBT-LR5, CBT-BR3, CBT-BL3, CBT-BG7, CBT-ST3	●			1 × 10 ¹⁰ /g 5 × 10 ¹⁰ /g 1 × 10 ¹¹ /g
7	Women Balance™	Vaginal Health	Adult (+12Y)	Capsule	CBT-LR6 Feminine, CBT-LA1, CBT-LR5, CBT-LU4	●	●	●	
8	Fresh Morning™	Anti-Hang Over	Adult (+20Y)	Capsule	CBT-LGA1, CBT-LC5, CBT-BL3, CBT-BR3	●	●	●	
9	Prolac-T™	Binding and removal of LPS	Family (+7Y)	Capsule/Tablet	Prolac-T™(Heat-Killed Bacteria)		●	●	
10	Slim Dog™	Weight Management	Dog	Micro-Tablet	CBT-LA1, CBT-LP3*, CBT-LR5 CBT-BR3*, CBT-BL3, CBT-SL4	2024: Veterinary Clinical Trials			
11	Protein Plus™	Protein Absorption	Adult (+12Y)	Capsule	CBT-LA1, CBT-LP3, CBT-LR5, CBT-BF3, CBT-BG7, CBT-BL3, CBT-ST3		●	●	

CELL BIOTECH

50, Aegibong-ro, 409 Beon-gil, Wolgot-myeon, Gimpo-si, Gyeonggido, 10003, Korea

TEL (+82)-31-987-6205 **FAX** (+82)-31-987-6209 **WEB** www.cellbiotech.com

CELL BIOTECH International

Bluecom Tower, Seocho-daero 274, Seocho-gu, Seoul, 06645, Korea

TEL (+82)-2-2668-6077 **FAX** (+82)-2-2668-6511

CELL BIOTECH International A/S

Strandvejen 125, DK-2900 Hellerup, Denmark

TEL (+45)3977-5040

This communication is only intended for business-to-business and health care professionals.

This communication is not intended for consumers of final consumer goods.

Nothing on this brochure is meant to be perceived as an approved claim.